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A seminar was held in May of 1967 addressed to what trade and industrial education will contribute to America's future. This report is one product of the meeting containing sections on: (1) The Challenge of the 1970s, (2) The Mission, (3) People, Needs, and Programs, (4) Interrelationships, (5) Expanding Horizons, and (6) Conclusions. Some major conclusions were: (1) More attention must be devoted to occupational education at the post-secondary level, (2) Educators must be sensitive to all educational and training needs, (3) Funds and efforts must be coordinated and mutually supportive, (4) Trade and industrial education services must continue as part of the public educational system, (5) Continuous modernizing and expansion of programs, facilities, and services must be accomplished, (6) It is imperative that trade and industrial education work cooperatively with all vocational education services, and (7) Programs must provide for continuing orientation to world of work. A companion publication is announced as VT 008 026. (DM)

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NEW DESIGNS FOR THE CHALLENGE OF THE 1970s

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The integrity of vocational education is dependent to a large extent upon the quality of instruction which is provided by teachers who are competent in their discipline. Vocational education programs should be staffed with individuals who have technical and professional competencies in the discipline in which they teach.

Therefore, it is essential that inter-disciplinary program development be characterized by close cooperative efforts of all the vocational services involved in planning, developing and implementing programs. Their maximum use of specialization and cooperation should result in a shared effort to effectively prepare people for the changing world of work.

March 1968

INTRODUCTION

It has now been 50 years since the first vocational education act was passed in 1917. At that time, no one, anywhere, had heard of a television repairman, an automatic transmissions specialist, or a computer technician. These and many other types of specialists did not exist because the technology demanding their services had not yet been developed.

What did exist at that time was a dynamic and changing American society, a society capable of converting scientific discoveries into technological capabilities that would enrich lives.

Today, with the 1970s close upon us, a dynamic United States faces problems and possibilities which are greatly intensified. New and difficult problems can be solved, and the challenge to build a better America can be met—when Americans plan.

In May, 1967, the American Vocational Association, in cooperation with The University of Texas, conducted a seminar at Austin, Texas, addressed to what trade and industrial education will contribute to America's future.

"New Designs for The Challenge of The 1970s" is one product of the meeting. (EDITOR'S NOTE: A full report of that conference will be available shortly. Voluminous notes taken at the meeting have been sifted and sorted and arranged to produce the upcoming document—which is a relatively short summary of what the conferees think must be done to meet trade and industrial training responsibilities to the nation and its individual citizens.)

We believe that trade and industrial education in the public school systems will continue to serve the nation well. We believe that the challenge of the 1970s will be met by the combination of practical industrial experience and sound educational philosophy offered by trade and industrial education.

We believe that trade and industrial education has a greatly expanded responsibility to keep the American public informed and aware of the programs, services, and contributions it has made, now provides, and should provide in the future.

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James R. D. Eddy
Seminar Chairman

March 1968

THE CHALLENGE OF THE 1970s

In response to the demands made on workers by changing conditions, trade and industrial education has consistently provided educational opportunities for individuals throughout their lifetimes. The tempo of change is accelerating in this decade, and evidence points to greater acceleration in the decade ahead.

The rapidly changing scene brings with it complex situations that have a profound effect on the American way of life. Some of these are:

- *The international crises* which continue to face our nation threaten our survival. The well-being of this nation depends to a great extent upon the capability of our work force.
- *The technological revolution* which is resulting in unprecedented demands for new knowledge, skills, insights, and understandings on the part of Americans. By shortening rapidly the time lapse between acquisition of new knowledge and its application to daily life, progress in the next decade will make that of the past seem small.
- *New knowledge* which is the most influential and vital force in the country. The demand for education, especially vocational education, utilizing this knowledge has become a national characteristic.
- *The growing population* which requires an increasing number of skilled and technical workers to produce its goods and service its economy. Each must continue to extend his skills and knowledge in order to cope with change. New processes and inventions require more exacting skill specifications and performance standards. Semi-skilled and unskilled jobs will require more education and training.
- *Changes in the labor force* which offer a challenge. Employment grows faster in the service occupations than in the production industries. The work force remains mobile. The number of young people entering the work force will continue to increase. A large and growing proportion of women are part of the labor force.
- *Economic, social, and political goals which are changing* for Americans because of better transportation and communication, rising educational levels, increased leisure time, and higher standards of living.
- *The continued population shift from rural to urban situations* which means that more people, and especially young people, must be assisted in adjusting to new environments.
- *The large number of youths who fail to achieve successful integration into the labor force,* even though they have the potential to succeed, which represents a socio-economic loss the nation cannot afford.

The basic challenges now facing us require positive and continuous action to meet the changing conditions of the 1970s.

THE MISSION

The mission of trade and industrial education in the 1970s is to insure the continued imaginative achievements of a creative and

productive people. Legislation gives continued and increased support to vocational education. Trade and industrial education can point with pride to its record of service in peace and war.

It works to eliminate causes of unemployment. Crash programs only meet emergencies.

The mission of trade and industrial education in the 1970s is to aid in the continuing development of people:

—who can produce efficiently;
—who are adaptable to change;
—whose occupational interests are trade, industrial, service, and technical pursuits;
—who share the responsibilities as well as the benefits of society.

It is to recognize and meet the needs of individuals, to contribute to a healthy economy, to prepare for satisfying employment and a high standard of living.

PEOPLE, NEEDS, AND PROGRAMS

Trade and industrial education programs serve youth and adults in a wide variety of jobs. These range from the single-skill operator through the skilled craftsman and technician, to include foremen, supervisors, and industrial leaders.

The programs develop skills, abilities, understandings, attitudes, and work habits needed to enter and make progress in the complex and changing work force.

In the 1970s, training and education geared to the needs, desires, and capabilities of individuals will be based on effective exploratory experiences and adequate vocational guidance. There will be sufficient occupational information, counseling, interest and aptitude testing, and referral to training. There will be satisfying job placement and wise follow-up.

The kinds of trade and industrial education that can and should be offered in a specific community or area are determined by the employment opportunities for a productive work force.

Actual needs will vary from one locality to the next, and there will be necessary differences in program design, in what is offered, and where emphasis is placed. Nevertheless, on a nationwide basis, trade and industrial education must provide for:

- The development of basic skills, knowledge, and attitudes as preparation for employment. There must be ready access to quality programs for students in secondary and post-secondary institutions throughout the nation.
- Planned, school-industry work-study programs and experience-related opportunities for students needing financial or other assistance in order to succeed in training for employment.
- Leadership experience for youth enrolled in trade and industrial education programs. This can be done by organizing active chapters of the Vocational Industrial Clubs of America.

- Preparatory education and training for youth who are not in school, and who are either unemployed or underemployed.
- Training and retraining opportunities for unemployed and underemployed adults so they can qualify for existing jobs. Particular attention must be given to needs within socio-economically depressed and problem areas.
- Expanded and strengthened related instruction services to apprentices in skilled and technical occupations. The quality and scope of this instruction is a vital adjunct to skills in the performance of a job.
- Training which will update and upgrade employed industrial and service workers.
- Research to keep trade and industrial education abreast of social, economic, and technological change.
- Expanded vocational training and opportunities for the handicapped and other persons with special needs.
- Retraining older workers whose skills are becoming obsolete or who have been displaced.
- Initial supervisory training for selected industrial workers and management training for other leadership positions.

Special and continued attention should be directed toward encouraging those promising innovations and daring experimental programs which will more adequately reach and serve individuals who have unique educational and training problems.

INTERRELATIONSHIPS

The responsibility for trade and industrial education rests with local and state systems of public education. The division of responsibility between agencies will vary from state to state.

Federal agencies should not extend controls over education, nor should they weaken initiative and action at state and local levels. All federal funds for the preparation, upgrading, and retraining of the work force should be allocated through public educational agencies.

The Federal Government's participation in trade and industrial education should be one of leadership through:

- Funds allocated to states to stimulate, develop, and sustain educational and training programs.
- Continuous development of program standards and criteria for operating and evaluating programs.
- Support of studies and research which will reach deeply into fundamental problems.

The impact of trade and industrial education on the American economy demands that it receive the best contributions of all segments of society which have an interest in, or concern for, developing the work force of this nation.

Meeting the needs of all people at all levels demands close coordination of all branches of vocational education. Trade and industrial educators must work closely with every educational, indus-

trial, labor, management, and governmental group to promote education and training.

EXPANDING HORIZONS

The current trade and industrial programs in the United States constitute a dynamic entity. Practices and procedures developed over the years, as a result of research and the recognition of emerging needs, have enabled trade and industrial education to fulfill its commitment to the people, the nation, and the industries it serves.

The strength of existing programs is based on well-defined objectives, competent professional personnel, adequate facilities underwritten by sufficient funds, and the fact that the entire program has been anchored in the public schools.

The challenge of the 1970s is formidable. Growing and ever-changing requirements of occupations and unsatisfied demands for people proficient in new occupations, leave no room for complacency.

These developments necessitate continuous appraisal and expansion of the goals of trade and industrial education, to encompass vastly expanded training responsibilities.

All youth and adults must have a functional education for citizenship. Obtaining and retaining a job requires education for living along with specific marketable skills and technical knowledge.

In the decade of the 1970s, it is imperative that trade and industrial education achieve a far higher level of excellence. Instruction, supervisory development, and apprentice and technician training are still relatively undeveloped in too many areas. The quality level to strive for should be such that employers will recognize those who complete trade and industrial education courses as their best prospective workers, and will seek out these people for employment or advancement. This level of quality should cause organized labor to look upon the participants in these programs as preferred candidates for apprenticeship and for membership in the ranks of labor.

To achieve higher levels of competency, tested standards must be maintained in terms of time, facilities, financial support, occupationally centered curricula, competent instructors and staff, and understanding administrators. Programs must be flexible and adaptable as to training time, scheduling, and location.

A wide variety of administrative structures must be used in all types of high schools, vocational centers, area schools, and other institutions.

To achieve the level of excellence toward which trade and industrial education should aspire, these specific requirements are vital:

- There must be a greater variety and choice of occupations for which training is presented—for both men and women, for youth and adults.
- A wider range of skill levels must be provided in occupational areas.
- A more intensive and expanded program of related technical instruction must be provided, reaching all levels of training.

● Schools and programs must function as service centers, with the capability and facilities to meet all community training needs in the range of their services.

● The program must attract and develop teachers of the highest caliber. In-service opportunities must be provided to keep teachers up-to-date in the technologies of their occupation and the techniques and methods of teaching.

● Leadership potential must be identified and improved in trade and industrial education at all levels.

● Capable students must be attracted and the highest level of performance demanded within their ability to achieve.

● Teacher-education programs must improve through continuous study of teaching methods, media, and technique.

● Cooperative relationships with management and labor must be strengthened. There must be increased use of, and reliance on, the counsel of advisory committees.

● There must be state-wide and nationwide cooperative effort in curriculum and instructional materials development.

● There must be a provision for practical accreditation of courses by qualified agencies.

Our systems of public education must continue to be recognized as the primary agencies for trade and industrial education. They must:

● Assume their responsibility for providing training and retraining for all persons.

● Take the initiative in seeking out, through surveys, studies, research, and consultative services, opportunities to serve.

● Lead in the development of new programs of quality for new occupations and technologies.

● Develop the use of new and definitive words, in describing institutions and programs, which inspire increased confidence from the public.

● Take the initiative in developing leadership through active chapters of the Vocational Industrial Clubs of America.

● Cooperate with other groups and agencies rendering service to industrial plants, unions, schools, or other educational structures.

● Foster and arrange for a mutual exchange of assistance with industry and labor with respect to teachers, facilities, equipment, and curriculum materials.

● Develop cooperative arrangements and provide subsidies for teachers and potential leaders to become qualified and upgraded at a reasonable cost to themselves and their families.

● Foster the development of programs of teacher-training, curriculum development, and student services within states and across state lines.

● Expand the area concept so that facilities, staff, and services become available for students who cannot be served in their local schools. When necessary, areas may cross city or state lines to develop the "common market" approach for providing services.

- Offer trade and industrial education services to employment security offices and other organizations concerned with manpower resources.
- Provide flexibility within curricula, offering instruction matched to the needs of the students, rather than that which fits conveniently into school schedule or catalog descriptions.
- Feature new educational tools, techniques, and media more prominently in plans for training programs and facilities. Means of converting new learning more rapidly and effectively into teaching content must be developed. Trade and industrial education must take advantage of real progress in machines, processes, and products. To achieve the excellence that programs demand, there must be modern equipment in flexible arrangement designed to use new training media. Budget planning must include replacement of obsolescent facilities and tools and constant provision for current and advanced training services.
- Recognize that all youth and adults can be trained or retrained and that regardless of the level of training, quality can be achieved and must be maintained.
- Make available to each individual—beginning early and continuing throughout his life—information about the world of work, and counseling about training opportunities consistent with his needs and desires.
- Implement a consistent program for informing the public of services that are available through trade and industrial education.

There is yet another new horizon for trade and industrial education—the possibility of cooperating in international projects aimed at upgrading skills and knowledge abroad. In the 1970s, international relations can be enhanced by the sending of American instructors, specialists, and administrators to foreign nations.

CONCLUSIONS

In the future, it will be as important for trade and industrial educators to devote as much attention to occupational education at the post secondary level as they have in the past to such education at the secondary level.

If the mission of the 1970s is to be achieved, educators must be sensitive to all educational and training needs and make use of all available resources to meet them.

Because federal moneys are now being extended to a variety of agencies for purposes which are essentially educational, it is extremely important that funds and efforts be coordinated and mutually supportive—not competitive.

For programs of trade and industrial education to be truly functional, they must provide for continuing orientation to the world of work, continuing readiness for career choice or career change.

Trade and industrial education services must continue to come through the public education system. The first federal vocational

act requires, as a major provision, states to spend training funds under public school control in order to receive matching benefits. Through the years, economically and educationally sound services have been rendered by trade and industrial education in the public schools.

To be recognized as primary agencies for trade and industrial education and services, the public schools must provide for the education and training needs of all persons desiring training in these fields.

The challenge of the 1970s requires continuous modernizing and tremendous expansion of programs, facilities, and services in order for trade and industrial education to fulfill its total stewardship to (a) high school and post secondary in-school youth, (b) out-of-school youth without marketable skills, (c) unemployed and underemployed adults, (d) employed workers whose work skills and technical knowledge must be updated or extended, (e) older workers whose work skills have been displaced, (f) apprentices in skilled trades and technical occupations, (g) industrial leaders such as foremen and supervisors, and (h) groups with other special needs.

The bold challenges to excellence in instructional programs must be met by competent teachers with high standards of achievement. Potential teachers must be occupationally competent and must receive quality teacher education in modern facilities, under inspiring educators. Leadership programs must provide persons who will assume responsibilities in guiding and advancing trade and industrial education services.

The status of the school, the quality of content and scope of individual instructional areas, and the degree to which services meet the needs of a community and of individuals being served, will reflect wise use of advisory committees, specialized consultative services, and well-established inter-agency relationships.

The overall coordination of programs and services within a state or geographic area, as they relate to trade and industrial education, will be the responsibility of competent personnel from this field of vocational education.

Maximum development of this nation's youth for leadership responsibilities will result from active planning and participation of youth in organizations such as the Vocational Industrial Clubs of America. This program will be supported dramatically and extended to serve ever-increasing numbers of youth in trade and industrial education.

Trade and industrial education will accept its expanded responsibility to keep the American public informed and aware of the programs, services, and contributions it has made, and now provides, which help youth and adults to find their places in our economic society, and which contribute significantly to the security of the nation.

The expanding nature of the American economy, as well as the rapid growth of industrial technology, make it imperative that trade

and industrial education work cooperatively with all vocational education services to meet the needs of individuals and the needs of business and industry.

Finally, as the needs of all segments of our society are identified, the challenge to trade and industrial education will intensify. The challenge of the 1970s can be met with increasing local, state, and federal financial support.

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